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(71) Applicant (for all designated States except US): CRYSTAL FIBRE A/S [DK/DK]; Blokken 84, DK-3460 Birkerød (DK).

(72) Inventors; and

(75) Inventors/Applicants (for US only): WILLIAMS, David, Philip [GB/GB]; Flat 7, 27 Marlborough Buildings, Bath

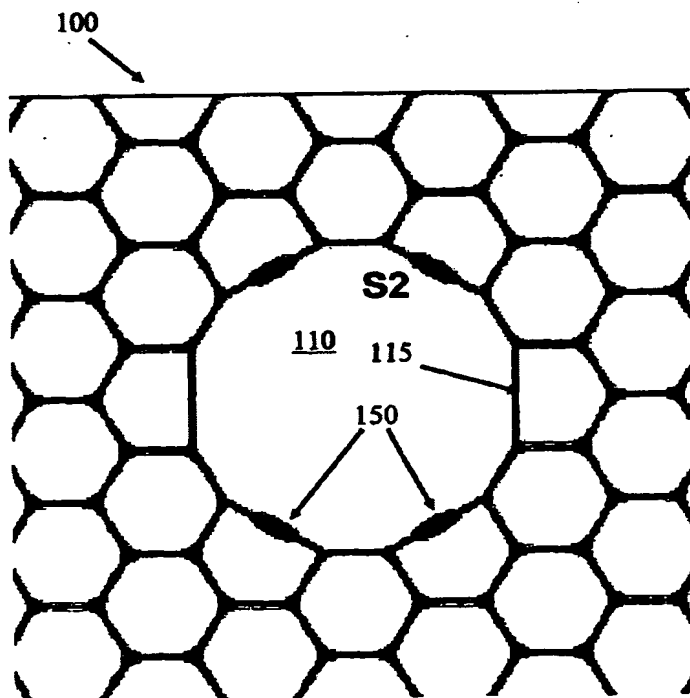
BA1 2LY (GB). BIRKS, Timothy, Adam [GB/GB]; 14 Horsecombe Brow, Combe Down, Bath BA2 5QY (GB). SABERT, Hendrik [DE/GB]; Flat 2, 19 Royal Crescent, Bath BA1 2LT (GB).

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(54) Title: BIREFRINGENT PHOTONIC BANDGAP OPTICAL WAVEGUIDE



(57) **Abstract:** A birefringent elongate waveguide for guiding light, comprises: a core region (110), comprising an elongate region of relatively low refractive index; and a cladding region (100), comprising elongate regions (105) of relatively low refractive index interspersed with elongate regions (117, 120) of relatively high refractive index. In a transverse cross-section of the waveguide, a (5) relatively high refractive index boundary region (115) is provided that surrounds the core region and has either (1) at most two-fold rotational symmetry or (2) a rotational symmetry that reduces the rotational symmetry of the waveguide to at most two-fold rotational symmetry. The symmetry of the boundary region (115) results at least in part from azimuthal variations therein, which are substantially uncharacteristic of the cladding region (100).